

KFOURY ET AL.
"Electronic Device With Rotatable
Keypad And Display"
Atty. Docket No. CS10289

Response Under 37 CFR 1.116
Appl. No. 09/941,521
Examiner J. Chiang
Art Unit 2642

Claims 1-6 (Canceled).

7. (Previously Presented) A portable electronic device having a housing, comprising:

an input area disposed on the housing, the input area is rotational at least substantially 180 degrees relative to the housing;

a display having a display image disposed on the housing;

a sensor for providing a sensor signal representative of an orientation of the input area relative to the housing; and

a display system for changing, in response to the sensor signal, an orientation of the display image on the display relative to the orientation of the input area and as a function of the orientation of the input area.

8. (Previously Presented) The device of claim 7, the display image is electronically rotatable in response to the sensor signal.

9. (Original) The device of claim 7, the character input area includes a touchscreen and wherein keys are visually rotatable.

10. (Original) The device of claim 7, the input area is a keypad.

11. (Original) The device of claim 7, the input area includes a rotatable keypad assembly having a keypad support, a keypad disc and a keypad membrane disposed between the keypad support and the keypad disc.

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12. (Original) The device of claim 11, the keypad support includes a plurality of projections, the keypad membrane includes corresponding notches and the keypad disc includes a plurality of tabs corresponding to the notches and plurality of projections.

13. (Original) The device of claim 12, each of the plurality of tabs includes a slot to receive a keypad support projection, and a seat surface rotatably engagable with a surface of a cover of the device.

14. (Currently Amended) The device of claim 7, the input area has at least first, second and third orientations, the second orientation substantially 90 degrees relative to the first orientation, and the third orientation substantially [90] 180 degrees relative to the first orientation.

Claim 15 (Canceled).

16. (Original) The device of claim 7, the electronic device further comprises at least one lookup table for remapping the keys relative to the key sensors.

17. (Original) The device according to claim 8, the electronic device further comprises display drivers for forming the display image on the display, and a processor for receiving the sensor signal and in response thereto modifying the display drivers in the electronic device for forming the display image on the display as a function of the orientation of the character input area.

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18. (Previously Presented) A portable electronic device, comprising:

a physically rotatable keypad, the keypad rotational at least substantially 180 degrees;

a display having a display image;

a sensor for providing a sensor signal representative of an orientation of the keypad relative to the electronic device;

display drivers for forming the display image on the display; and

a processor for receiving the sensor signal and in response thereto modifying the display drivers for forming the display image on the display with an orientation that is a function of the orientation of the keypad.

19. (Original) The device of claim 18, the keypad has a plurality of keys held in a key housing, and a plurality of key sensors that sense activation of the keys, the key sensors located on a sensor housing.

20. (Original) The device of claim 19, the key sensors are one of resistive sensors, capacitive sensors, and bubble switches.

21. (Currently Amended) The device of claim 18, the keypad has at least first, second and possibly third orientations, the second orientation rotationally substantially 90 degrees counterclockwise from the first orientation and the third orientation rotationally substantially [90] 180 degrees clockwise from the first orientation.

Claim 22 (Canceled).

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23. (Original) The device of claim 18, wherein the electronic device further comprises at least one lookup table for remapping the keys relative to the key sensors.

24. (Previously Presented) A portable electronic device, comprising:

a housing;

a keypad pivotally disposed on the housing, the keypad pivotally positionable between at least first and second positions separated by 180 degrees;

a display disposed on the housing;

the display having a first display configuration when the keypad is in the first position,

the display having a second display configuration when the keypad is in the second position.

Claim 25 (Canceled).

26. (Previously Presented) A portable electronic device, comprising:

a housing having an upper portion and a lower portion;

a keypad disposed on the housing;

a display disposed on the housing;

the display nearer the lower portion of the housing than the keypad, the keypad nearer the upper portion of the housing than display.

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27. (Previously Presented) The portable electronic device of Claim 26,

the keypad is rotatably coupled to a side of the housing, the keypad rotatably positionable in at least two positions separated by an angle of approximately 90 degrees,

the keypad remaining on the same side of the housing when in the at least two positions.

28. (Previously Presented) The portable electronic device of Claim 27,

a keypad position detecting sensor,
information on the display oriented based on keypad position detected by the keypad position detecting sensor.